

3.3 The balance of payments

Learning Outcomes

- Outline the role of the balance of payments.
- Distinguish between debit items and credit items in the balance of payments.
- Explain the four components of the current account, specifically the balance of trade in goods and the balance of trade in services, income, and current transfers.
- Distinguish between a current account deficit and a current account surplus.
- Explain the two components of the capital account, specifically capital transfers and transaction in non-produced, non-financial assets.
- Explain the three main components of the financial account, specifically, direct investment, portfolio investment, and reserve assets.
- Explain that the current account balance is equal to the sum of the capital account and financial account balances.
- Examine how the current account and the financial account are interdependent.
- Calculate elements of the balance of payments from a set of data. (HL)

What is the balance of payments account?

It is a record of the financial transactions that occur between a country and the rest of the world. There are three separate accounts in the balance of payment account: The current account, the capital account, and the financial account.

Explain the components of the current account

The current account on the balance of payments is divided into four **components**. Trade in goods, trade in services, flows of income, and current transfers.

Trade in goods

The trade in goods is also called the trade in visibles (goods can be seen). The trade in services is also called the trade in invisibles (services cannot be seen).

Expenditure on goods exported from a country to other countries and expenditure on imported goods from other countries in to the country is recorded in the current account. Expenditure on all goods is recorded, including expenditure on consumer goods, **capital** goods, and **raw materials**.

Expenditure on imported goods flows out of the country from the domestic buyers in the country to foreign producers in other countries. Expenditure on imported goods is a leakage from the **circular flow of income** which reduces the country's **aggregate demand**. Expenditure on imported goods is recorded as a debit in the current account and is given a minus sign (-).

Expenditure on exported goods flows into the country from foreign buyers in other countries to domestic producers in the country. Expenditure on exported goods is an injection into the circular flow of income which increases the country's aggregate demand. Expenditure on exported goods is recorded as a credit in the current account and is given a plus sign (+).

The difference between expenditure on exported goods and expenditure on imported goods (measured in the country's currency) is called the balance of trade in goods.

Model sentence: A trade surplus in goods occurs when expenditure on exported goods is greater than expenditure on imported goods. A trade surplus in goods is a positive balance.

Model sentence: A trade deficit in goods occurs when expenditure on imported goods is greater than expenditure on exported goods. A trade deficit in goods is a negative balance.

Trade in services

Expenditure on services exported from a country to other countries, and expenditure on imported services from other countries in to the country, is recorded in the current account. Services include tourism, education, health services, banking, insurance, and transport services.

Expenditure on imported services flows out of the country from the domestic buyers in the country to foreign producers in other countries. Expenditure on imported services is a leakage from the circular flow of income

Synonyms

components parts

Subject vocabulary

capital (goods) manufactured goods that are used in the production of other goods

raw materials the basic material from which a good is made

circular flow of income an economic model that shows the flow of money between households and firms and, in more complex versions, the flows of money into and out of the financial sector, government sector, and the international sector

aggregate demand the total demand for goods and services in the economy at a given price level in a given period of time

which reduces the country's aggregate demand. Expenditure on imported services is recorded as a debit in the current account and is given a minus sign (-).

Expenditure on exported services flows into the country from foreign buyers in other countries to domestic producers in the country. Expenditure on exported services is an injection into the circular flow of income, which increases the country's aggregate demand. Expenditure on exported services is recorded as a credit in the current account and is given a plus sign (+).

The difference between expenditure on exported services and expenditure on imported services (measured in the country's currency) is called the balance of trade in services. A trade surplus in services occurs when expenditure on exported services is greater than expenditure on imported services. A trade surplus in services is a positive balance. A trade deficit in services occurs when expenditure on imported services is greater than expenditure on exported services. A trade deficit in services is a negative balance.

Model sentence: The balance of trade is the difference between expenditure on exported goods and services and expenditure on imported goods and services. This is called net exports ($X - M$).

Flows of income

Interest is earned on deposits in banks and on **government bonds**, **dividend payments** are earned on shares and rent is earned on property. Interest, dividends, and rent are types of income. Citizens and institutions of one country own assets in other countries. For example, some Americans have saving accounts in UK banks, own UK government bonds, shares in UK companies, and property in the UK. The income earned on these assets flows out of the UK and into the US. American workers working in the UK may send some of their wages back to the US. Wage is a type of income. Income flows out of the UK and into the US. In this example income flows out of the UK and is therefore recorded in the current account as a debit in the UK's current account and given a minus sign. The income flows into the US and is therefore recorded as a credit in the current account of the US and given a plus sign.

Model sentence: The balance of income is the difference between the amount of income flowing into a country and the amount of income flowing out. This is called net income (NY).

Current transfers

A transfer is a payment made for which no good or service is exchanged. For example a government of one country gives aid to the government of another country. Individuals also transfer money from one country to groups in another country for charitable purposes or to support certain causes. Transfers flowing out of a country are recorded in that country's current account as debits and given a minus sign. Transfers flowing in to a country record the transfers in their current account as credits and are given a plus sign.

Model sentence: The balance of current transfers is the difference between the current transfers flowing into a country and current transfers flowing out. This is called net current transfers (NCT).

Distinguish between a current account deficit and a current account surplus

The current account is the sum of the balance of trade + the balance of income + the balance of current transfers. It can be written as $CA = (X - M) + NY + NCT$. A country has a current account deficit when the amount of money flowing out of the country to other countries is greater than the money flowing into the country from other countries. There is a deficit on the current account when the sum of the debits is greater than the sum of the credits. This occurs when the sum of $(X - M) + NY + NCT$ is negative. A country has a current account surplus when the amount of money flowing into the country from other countries is greater than the amount of money flowing out of the country to other countries. The sum of the credits is greater than the sum of the debits. This occurs when the sum of $(X - M) + NY + NCT$ is positive.

Explain the two components of the capital account

The capital account is in two parts: capital transfers and exchanges of non-produced, non-financial assets.

What are capital transfers?

Some countries with relatively high **GDPs** provide finance to other countries that are relatively poor for the construction of fixed assets such as schools, hospitals, and roads. Countries may also give other countries

Subject vocabulary

interest the price paid for the use of borrowed money/ the money earned from bank deposits

government bonds issued by the government to investors in exchange for lending it money. The investor is entitled to interest payments on the loan as well as repayment of the loan when the bond matures.

dividend payments payments made by companies to shareholders from the after-tax profits

GDP gross domestic product is the monetary value of all the finished goods and services produced within a country in a given period of time, usually measured over a year

capital goods such as computers and medical equipment. There is no payment made for these capital transfers. The country that receives money from another country records it in the capital account as a credit and it is given a plus sign because it is money flowing into the country. The country that gives the money records it in the capital account as a debit and it is given a minus sign because it is money flowing out of the country.

Countries loan money to other countries. There is an agreement that the loans are to be paid back. Sometimes the lender writes off the debt so that the borrower does not have to pay it back. This is called debt forgiveness. The country that is owed the money records the amount written off in the capital account as a debit and it is given a minus sign. The country that owes the money that is written off records the amount in the capital account as a credit and it is given a plus sign.

What are exchanges of non-produced, non-financial assets?

These assets include **patents**, **copyrights**, **trademarks**, the rights to **natural resources**, **acquisition** of **brands**, and **franchises**. Brands, for example are bought and sold internationally. When a company in one country buys a brand from a company in another country the transaction is recorded in the capital account. China has bought natural resources, for example forests with water rights from Japan and the rights to minerals, copper, and uranium in Africa. These exchanges are recorded as a debit in the capital account of China and a credit in the capital account of those countries selling the assets.

The purchase of the right to extract natural resources from the land of another country is different from the purchase of raw materials from another country. Raw materials are exported and imported and the payment for them is recorded as a debit in the current account of the importing country and as a credit in the current account of the exporting country.

Explain the three main components of the financial account: direct investment, portfolio investment, and reserve assets

The exchange between a country and other countries of **financial assets** and **real assets** is recorded in the financial account. Domestic owners of these assets can sell them to foreign buyers. Real assets include land and commercial property such as office buildings and factories. Financial assets include company shares and government bonds. China has bought a large proportion of US government bonds. The money flows from China to the US and is recorded in the financial account of China as a debit and a credit in the financial account of the US. Shares in companies are traded internationally. When shares in a company are bought or sold by a foreigner the transaction is recorded in the financial account.

What is direct investment?

When an investor buys a relatively large share of a foreign firm (at least 10% of the shares of the company) it is called foreign direct investment (FDI) and is classified as a direct investment.

The purchase of company shares in the domestic country by foreign investors is an example of direct investment. Direct investment also occurs when domestic investors buy shares and government bonds from foreign sellers. The way in which the transactions are recorded in the financial account is explained below.

When foreigners buy shares in a domestic firm money flows into the domestic economy and this is recorded as a credit in the financial account and is given a plus sign. When foreigners sell shares in a domestic firm to domestic buyers, money flows out from the domestic economy. This transaction is recorded in the financial account as a debit and is given a minus sign.

When **shareholders** in the domestic economy sell their shares in foreign firms to foreign buyers, money flows into the economy and is therefore recorded as a credit in the financial account and is given a plus sign. When domestic investors buy shares in foreign firms the money flows out from the domestic economy and the amount is recorded as a debit in the financial account and is given a minus sign.

What is portfolio investment?

This is investment in shares of foreign firms, foreign government bonds, and foreign company bonds by small investors. These are foreign financial assets. When relatively small domestic investors buy foreign financial assets money flows out from the domestic economy, therefore it is recorded as a debit in the financial account. When domestic investors sell financial assets the money flows into the domestic economy so it is recorded as a credit.

What are reserve assets?

Central banks hold foreign currencies, foreign government bonds and gold. These reserve assets are recorded in the reserve account of the financial account. The reserve assets are increased or reduced by the central banks to make sure the balance of payments always equals 0.

Glossary

patents a government licence that gives the holder exclusive rights to a process, design, or new invention for a designated period of time. It gives a firm the right to stop another firm from making, using, or selling that which has been granted a patent.

copyrights legal right(s) to be the only person/company that can produce a book/performance play/song

trademarks special name(s)/mark(s)/word(s) on a product that show which company made it

Subject vocabulary

natural resources assets, such as mineral deposits and timber, that occur in nature and can be used in production

brands goods that have been given a distinct logo, mark or label in order to differentiate them from the substitutes

franchise an authorization granted by a company to an individual or group enabling them to carry out specified commercial activities

financial assets non-physical assets such as shares, bonds, and savings accounts

real assets physical assets that have a value. They include precious metals, commodities, property, factories, agricultural land, and oil.

shareholders individuals or institutions that own at least one share in a company. They are the owners of the company and are therefore entitled to a share of the profits.

Synonyms

acquisition purchase

Model sentence: When there is an overall combined surplus on all of the accounts in a given year, that is the amount of money from international transactions flowing into the economy is greater than the money flowing out (credits > debits) the assets held in the reserve account increase by the difference.

Model sentence: When there is a combined deficit on all the accounts, that is the amount of money flowing out of the economy is greater than the amount flowing in (debits > credit) the assets held in the reserve account decrease by the difference.

Given the information above, it is true that the sum of all the accounts plus the change in reserve assets equals zero. A current account deficit is offset by an overall surplus in the capital and financial accounts. A current account surplus is offset by an overall deficit in the capital and financial accounts.

Calculate elements of the balance of payments from a set of data (HL)

Balance of payments figures for country X	Column1
Category	US \$ billions
Imports of goods and services	-650
Exports of goods and services	+450
Net income	-90
Net current transfers	+60
Net capital transfers	+80
Net exchanges of non-produced, non financial assets	-35
Net direct investments	+30
Net portfolio investments	-70
Reserve assets	

How to calculate the current account balance

The current account has four components: the trade in goods and services, the flow of income, and current transfers.

Net exports = export revenue – import expenditure = \$450 billion – \$650 billion = –\$200 billion.

Current account balance = net exports + net income + net current transfers: $-200 - 90 + 60 = -230$.

The current account deficit = \$230 billion (on the current account the money flowing out of the country is greater than the money flowing in by \$230 billion).

How to calculate the capital account balance

The capital account has two components: capital transfers and exchanges of non-produced, non-financial assets.

Net capital transfers + net exchanges of non-produced, non-financial assets = $80 - 35 = \$45$ billion.

The capital account surplus = \$45 billion.

How to calculate the financial account balance

The financial account has three components: direct investments, portfolio investments, and the reserve account which is used to eliminate a surplus or deficit on the balance of payments.

Net direct investments + net portfolio investments = $30 - 70 = -\$40$ billion.

The balance of payments = the current account balance + the capital account balance + the financial account balance + the reserve account.

The balance of payments = $-230 + 45 - 40 = -\$225$ billion.

There is a deficit of \$225 billion therefore the currency reserves held by the central bank falls by \$225 in order to eliminate the deficit so that the balance of payments = 0: $-230 + 45 - 40 + 225 = \$0$.

Test your understanding of this unit by answering the following questions

- Explain how a deficit on the balance of payment is eliminated.
- Describe the components of the current account.
- Distinguish between a current account deficit and a current account surplus.

Learning Outcomes

- Explain why a deficit in the current account of the balance of payments may result in downward pressure on the exchange rate of the currency.
- Explain why a surplus in the current account of the balance of payments may result in upward pressure on the exchange rate of the currency.
- Discuss the **implications** of a persistent current account deficit, referring to factors including foreign ownership of domestic assets, exchange rates, interest rates, indebtedness, international credit ratings, and demand management (HL).
- Discuss the possible consequences of a rising current account surplus, including lower domestic consumption and investment, as well as the appreciation of the domestic currency, and reduced export competitiveness.
- Explain the methods that a government can use to correct a persistent current account deficit, including expenditure switching policies, expenditure reducing policies, and supply-side policies, to increase competitiveness (HL).
- Evaluate the effectiveness of the policies to correct a persistent current account deficit (HL).
- State the Marshall-Lerner condition and apply it to explain the effects of depreciation/**devaluation**.
- Explain the J-curve effect, with reference to the Marshall-Lerner condition (HL).

Explain the effect of a current account deficit on the exchange rate

See pages 214–17 for a detailed explanation of how the exchange rate is determined in a floating exchange rate system.

The current account measures the balance of trade in goods and services and flows of income between a country and the rest of the world. A trade deficit can cause an overall current account deficit and a trade surplus can cause an overall current account surplus.

Model sentence: A balance of trade deficit occurs when import expenditure is greater than export revenue. In other words **net exports** ($X - M$) is negative.

The **exchange rate** of a currency is determined by the forces of demand for, and supply of, a currency. International trade makes an important contribution to the demand for, and supply of, a currency.

When domestic buyers in the US buy goods from foreign producers in the Eurozone the buyers must exchange US dollars for euros in order to pay the producers in euros. This leads to an increase in the supply of US dollars on the **foreign exchange market** and an increase in demand for euros. When domestic buyers in the Eurozone import goods from the US it leads to an increase in supply of euros and an increase in demand for the US dollar. If the US runs a current account deficit with the Eurozone it means that the value of imports from the Eurozone is greater than the value of its **exports** to the Eurozone. This means that the supply of dollars onto the foreign exchange markets is greater than the demand for dollars. As the exchange rate falls, the price of imports rises but the price of exports falls. The quantity of exports demanded rises therefore a low exchange rate leads to an increase in employment in exporting industries.

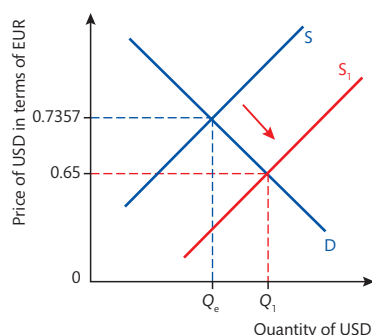


Figure 77.1

In Figure 77.1 at the equilibrium exchange rate $\$1 = 0.7357$ euro the quantity of US dollars demanded = the quantity of US dollars supplied at Q_e . If the US current account deficit increases the supply of US dollars will put downward pressure on the exchange rate. There is now excess supply of US dollars and the price of the dollar against the euro must fall to eliminate the excess supply. The exchange rate falls from $\$1 = 0.7357$ euros to $\$1 = 0.65$ euros and the quantity of US dollars traded increase from Q_e to Q_1 .

Explain the effect of a current account surplus on the exchange rate

Model sentence: A balance of trade surplus occurs when expenditure on export revenue is greater than import expenditure. In other words **net exports** ($X - M$) is positive.

Synonyms

implications effects/
outcomes

Subject vocabulary

devaluation the official lowering of the value of a country's currency in a fixed exchange rate system

net exports export revenue minus import expenditure

exchange rate the price of a country's currency in terms of another currency

foreign exchange market a decentralized global market for the buying and selling of currencies

exports goods produced in one country that are sold into another country

Subject vocabulary

consumer surplus the difference between the price a consumer is willing and able to pay and the price the consumer actually pays

nominal income the numerical value of income which has not been adjusted to take into account the effect inflation has on the purchasing power of income

demand-deficient unemployment unemployment caused by a lack of aggregate demand. Unemployment changes as the economy goes through the business cycle, increasing when AD falls and decreasing when AD rises.

aggregate demand the total demand for goods and services in the economy at a given price level in a given period of time

circular flow of income an economic model that shows the flow of money between households and firms and, in more complex versions, the flows of money into and out of the financial sector, government sector, and the international sector

resources the inputs into the production process, the factors of production

exchange rate the price of a country's currency in terms of another currency

price inelastic the percentage change in quantity demanded/supplied < the percentage change in price

imported inflation inflation caused by an increase in the price of imported goods. For example as the price of imported raw materials increases, it leads to an increase in the price of domestically produced goods.

raw materials the basic material from which a good is made

cost-push inflation inflation caused by an increase in the costs of production, resulting in a decrease in aggregate supply

Glossary

persistent continues to exist/happen for a long time

When a country's export revenue is greater than its import expenditure, the demand for its currency is greater than the supply of its currency. There is an upward pressure on the price of the currency leading to an increase in the exchange rate. As the exchange rate increases, the price of imports falls but the price of exports rises. The quantity of imports demanded increases and the quantity of exports demanded falls. Therefore a high exchange rate can lead to unemployment in exporting industries.

How do changes in the exchange rate correct the current account imbalance?

As explained above, a current account surplus leads to an increase in the exchange rate, which in turn leads to an increase in import expenditure and a fall in export revenue. As import expenditure increases and export revenue falls the current account surplus is reduced. A current account deficit leads to a fall in the exchange rate, which in turn leads to a fall in import expenditure and an increase in export revenue. As import expenditure falls and export revenue increases the current account deficit is reduced.

Discuss the consequences of a current account surplus (HL)

When the exchange rate increases the price of imported consumer goods and imported raw materials falls. The purchasing power of households' income increases. **Consumer surplus** increases lead to an increase in consumer welfare. Consumers are able to satisfy more wants with their **nominal income**. Costs of production also fall for firms that import raw materials, leading to an increase in supply. Firms' average costs fall making the firms more price competitive.

When the exchange rate increases the price of exports increases, leading to a fall in international price competitiveness and a fall in the quantity of exports demanded. Therefore a high exchange rate can lead to high **demand-deficient unemployment** in exporting industries. Exports are also a component of **aggregate demand** and an injection into the **circular flow of income**. So a high exchange rate can have a negative effect on the economy as a whole.

A country has a very high current account surplus when the value of its exports is a lot greater than the value of imports. Some countries use lots of their **resources** to produce goods that are exported and consumed by foreigners and fewer resources are used to produce goods for domestic households to consume. Also, a country that has a high current account surplus might import fewer goods for domestic consumption. Therefore, domestic consumption of goods might be relatively low when the country has a very high current account surplus. The government must offset the surplus on the current account by purchasing reserve assets.

Discuss the consequences of a persistent current account deficit (HL)

Set out below is a detailed discussion of the various effects of a persistent current account deficit.

What is the effect of a persistent current account deficit on the exchange rate?

When a country has a **persistent** current account deficit, the expenditure on imports is continuously greater than the revenue from exports. Supply of its currency in the forex market is persistently greater than the demand for its currency, therefore there is continuous downward pressure on the **exchange rate**. There is a possibility that the balance on the current account self-adjusts because as the exchange rate falls the price of imports increases and the price of exports falls leading to an increase in demand for exports and a fall in demand for imports causing an improvement in the current account balance.

However, if demand for imports is **price inelastic** the quantity of imports demanded will fall when the exchange rate falls but the expenditure on them will increase, thereby possibly worsening the deficit (see the Marshall-Lerner condition discussed in detail on pages 236–37).

A fall in exchange rate increases the price of imports leading to **imported inflation**. The price of imported consumer goods increases and the price of **raw materials** increases leading to **cost-push inflation**.

Model sentence: A persistently low exchange rate caused by a current account deficit leads to higher import prices causing an increase in the rate of inflation.

What is the effect of a persistent current account deficit on interest rates?

When a country has a current account deficit it must make up for this deficit by having a surplus on the capital account and financial account. In order to increase flows of money into the country the Central Bank may raise

interest rates. This acts as an incentive for foreigners to deposit money in the country's banks, therefore the flow of money into the country increases, creating a surplus to offset the current account deficit. The money that flows in and out of countries' financial markets as investors try to earn the highest rate of interest is called hot money.

However, the need for high interest rates means the central bank cannot lower interest rates as part of an **expansionary monetary policy**. A **recession** therefore, might be deeper and longer because high interest rates are needed to attract hot money in order to offset the current account deficit. Government is therefore forced to use **fiscal policy** to increase aggregate demand.

Model sentence: If high interest rates are needed to attract 'hot money' then the central bank is unable to reduce interest rates to encourage economic growth.

What is the effect of a persistent current account deficit on the interest paid on government bonds?

When a country has a current account deficit it must make up for this deficit by having a surplus on the capital account and financial account. Direct investment and portfolio investments are recorded in the financial account. This investment includes foreigners buying the country's **government bonds**. In order to increase demand for the bonds, and thereby increase demand for the currency of the country, the interest rate paid on the bonds must rise. The increase in the flow of money coming into the country will help to offset the deficit on the current account.

However, high interest rates increase the cost of borrowing, thereby reducing the demand for loans for **investment** and reducing the demand for household loans for the purchase of consumer goods, leading to a fall in aggregate demand and a lower rate of **productivity**. Also, high rates of interest paid on government bonds crowds out **private sector** investment because less investment funds are available for the private sector to borrow.

Model sentence: Low levels of investment leads to a fall in international competitiveness causing an increase in the current account deficit as the demand for the country's exports falls.

What is the effect of a persistent current account deficit on foreign ownership of domestic financial and real assets?

As explained above when a country has a current account deficit it must make up for this deficit by having a surplus on the capital account and financial account. The exchange between a country and other countries, of **financial assets** and **real assets**, is recorded in the financial account. A country can offset the current account deficit from the sale of domestic assets to foreigners. Money flows into the country from abroad, increasing the demand for the country's currency. Ownership of domestic assets is transferred to foreigners. However, if foreign owners of a country's assets believe that they will fall in value in the future they will sell them, thereby increasing the supply of the currency and causing the exchange rate to fall.

A surplus on the capital account may not be large enough to offset the current account deficit. In this situation the central bank runs down **foreign currency reserves** in order to increase the capital account and thereby offset the deficit. However, if the deficit is persistent the reserves at some point in the future will run out.

What is the effect of a persistent current account deficit on indebtedness?

When a country has a persistent deficit on the current account the financial account has to have a persistent surplus to offset the deficit. Financial assets include government bonds. A country can attract flows of money into the country by selling government bonds to foreign countries. This helps to offset the current account deficit, but at the same time it increases the country's **national debt**. The debt must be paid back at some time in the future along with the interest payments.

Continuously borrowing to offset a persistent current account deficit leads to a persistent growth in the national debt and the interest paid on the debt. Interest payments on the debt are paid by the taxpayers. **Tax revenue** is used by the government to pay the ever-growing interest. The national debt of the UK at the end of 2013 was about £1,300 billion. The interest payment on the debt was about £50 billion. This money flows out of the UK abroad, thereby reducing potential levels of aggregate demand as the tax revenue cannot be spent on goods and services produced in the UK. As the debt grows the government may have to increase taxes in order to pay the interest. This reduces households' **disposable income**, thereby reducing aggregate demand and restricting **economic growth**.

Subject vocabulary

interest rates the percentage amount charged by a lender for money borrowed or paid to a person for saving money

expansionary monetary policy government policy involving the expansion of the money supply and the reduction of the interest rate

recession two consecutive quarters of negative economic growth

fiscal policy government policy designed to achieve macroeconomic objectives through government expenditure and taxation

government bonds issued by the government to investors in exchange for lending it money. The investor is entitled to interest payments on the loan as well as repayment of the loan when the bond matures.

investment the addition to capital stock

productivity the quantity of output per unit of input

private sector the part of the economy that is regulated but not controlled by the state and concerns individuals and groups bringing together the factors of production normally with the aim of making a profit

financial assets non-physical assets such as shares, bonds, and savings accounts

real assets physical assets that have a value. They include precious metals, commodities, property, factories, agricultural land, and oil.

foreign currency reserves the amount of foreign currency and gold that is held by the central bank of a country

national debt the total amount of money a government has borrowed. When a government runs a budget deficit it must borrow the difference thereby adding to the national debt

tax revenue the income the government receives through the levying and collection of taxes

disposable income household income after direct taxation has been deducted

economic growth an increase in real GDP

Subject vocabulary

budget deficit occurs when government expenditure is greater than tax revenue

government borrowing requirements the amount of money a government needs to borrow in order to offset its budget deficit

barriers to trade restrictions imposed by a government on the free exchange of goods or services between countries

substitute goods a good that can be used in place of another good

price inelastic the percentage change in quantity demanded/supplied < the percentage change in price

protectionism government policies, including tariffs, quotas, and subsidies, that restrict the extent of international trade and which are implemented in order to protect domestic industries from cheaper imports

quotas a physical limit placed on the number of goods that can be traded or produced

tariffs a tax placed on imported goods and services

productively efficient occurs when a given quantity of output is produced at the minimum total cost per unit of output

free trade the unrestricted buying and selling of goods and services between countries without the imposition of barriers to trade such as quotas and tariffs

What is the effect of a persistent current account deficit on international credit ratings and demand management?

A credit rating agency is a company that assesses a country's ability to repay its debt and its ability to pay the interest on the debt. When a persistent current account deficit is offset by the selling of government bonds national debt continues to grow. If the agency believes that the country will have difficulty in paying back the debt, and paying the interest on the debt, then it will reduce the creditworthiness of the country. Buyers of government debt will consider that lending to the government of the country is more risky and, in order to sell the bonds, the government will have to raise the interest rate to attract lenders. Higher interest payments on the national debt increase the amount of tax revenue that the government must pay to investors, thereby reducing the amount available for the government to spend in the domestic economy and causing a fall in levels of aggregate demand. Higher interest payments may increase the **budget deficit**, leading to an increase in the **government borrowing requirement**, further increases in the national debt, and further increases in interest payments.

Discuss the methods that a government can use to reduce a persistent current account deficit (HL)

Discussed below are government policies that can be used to correct a persistent current account deficit, including expenditure switching policies, expenditure reducing policies, and supply-side policies.

Discuss how expenditure switching policies might reduce a persistent current account deficit

These policies are aimed at reducing the consumption of imports and increasing the consumption of domestically produced goods, thereby reducing expenditure on imports and increasing revenue from domestically produced goods so that the flow of money leaving the country falls thereby reducing the current account deficit. There are two main ways in which the government and the central bank can achieve this objective: devaluing its currency and raising **barriers to trade**.

Discuss how a fall in the value of a currency might reduce a persistent current account deficit

There are two main ways in which the central bank can reduce the value of its currency. It can exchange its currency for foreign currencies on the foreign exchange market, thereby increasing the supply of its currency and lowering its price. As the exchange rate falls the price of imports increases. Domestically produced **substitute goods** become more price competitive. Domestic buyers switch expenditure away from imports to domestically produced goods, thereby reducing the money flowing out of the country and leading to a fall in the current account deficit. At the same time the price of exports falls as the exchange rate falls, leading to an increase in expenditure on exports. The success of this policy depends upon the availability of domestically produced substitutes. If few are available then buyers will have little choice and many will continue to buy the imports. When demand for imported goods is **price inelastic** the percentage increase in the price of imports is greater than the percentage fall in quantity demanded. Therefore, although the quantity demanded of imports falls, the expenditure on them increases. If the demand for exports is price inelastic then the percentage fall in price is greater than the percentage increase in quantity demanded. Quantity of exports demanded rises as price falls but expenditure on them falls. Therefore a fall in the exchange rate will not always reduce the current account deficit: it is dependent on the price elasticities of the demand for exports and imports (the relationship between PED of imports and exports and the deficit is discussed in detail on pages 236–37).

Discuss how protectionism might reduce a persistent current account deficit

The government can use **protectionism** to reduce the consumption of imports and increase the consumption of domestically produced substitutes by the use of **quotas** and **tariffs** (see pages 202–209 for a detailed explanation of the effects of protectionist policies). A tariff or a quota increases the price of imports, thereby making domestically produced goods more competitive. Consumers will switch expenditure away from imports to domestically produced goods, leading to a fall in the quantity of money flowing out of the country and a fall in the current account deficit.

However, many countries have signed trading agreements with other countries and when a country breaks the agreement the other countries are likely to raise barriers to trade against that country, thereby reducing the demand for its exports. This reduces the money flowing into the country, thereby increasing its current account deficit. Also, protected but relatively inefficient domestic firms are able to stay in business even though they are producing at a relatively high average cost. When they are protected the domestic firms do not need to be

productively efficient. There is a misallocation of resources as more of the world's scarce resources are used to produce the goods than would be the case under **free trade** (see pages 202–209 for a detailed explanation of how protectionism affects efficiency).

Discuss how expenditure reducing policies might reduce a persistent current account deficit

If total expenditure falls then there will also be a fall in expenditure on imports. A fall in expenditure on imports reduces the amount of money flowing out of the country, thereby reducing the current account deficit. A government can achieve a fall in expenditure by introducing **contractionary fiscal policy** and/or **contractionary monetary policies**. The effects of these policies are discussed below.

Discuss how contractionary fiscal policy might reduce a persistent current account deficit

Increasing income tax, a **direct tax** and tax on goods and services, an indirect tax, and reducing government expenditure causes a fall in aggregate demand. Households have less disposable income to spend and firms have less after-tax profit to spend, leading to a fall in household expenditure and business **investment** on both domestically produced goods and imported goods. As AD falls, firms respond by reducing quantity supplied. Unemployment increases, and the rate of economic growth falls. This policy might lead to a reduction in the current account deficit but the government is unlikely to achieve its main macroeconomic objectives of low unemployment and economic growth.

However, lower levels of aggregate demand will put a downward pressure on prices, thereby slowing down the **rate of inflation**. This makes exports more price competitive, leading to an increase in the quantity of exports demanded which increases the amount of money flowing into the country. As more money flows in the current account deficit falls.

An increase in interest rates increases the cost of borrowing, leading to a fall in household and business borrowing and therefore a fall in household expenditure and business investment on both domestically produced goods and imported goods. So this policy will reduce the flow of money leaving the country. Like contractionary fiscal policy, contractionary monetary policy leads to higher unemployment and a fall in the **rate of economic growth**, but also leads to a lower rate of inflation which increases price competitiveness of exports, leading to increases in the flow of money into the country from abroad and a further fall in the current account deficit.

The relatively high interest rate attracts **hot money** flows as foreign investors try to earn high interest on their deposits. This increases money flows into the country helping to offset the current account deficit. The demand for the domestic currency also increases, leading to an increase in the exchange rate. The price of exports increases and the price of imports falls. This will not help to reduce the current account deficit because it might cause a fall in the amount of money flowing into the country from the sale of exports and an increase in the amount of money flowing out from the purchase of imports.

Discuss how supply-side policies might reduce a persistent current account deficit

As explained above there are negative effects on **macroeconomic objectives** of contractionary policies. Therefore, a government may look to **supply-side policies** to reduce the current account deficit.

Many countries of Western Europe and the US have experienced **structural changes**. There has been a fall in **heavy industry** and manufacturing and a rise in the **service sector**. Countries such as China now have the **comparative advantage** in manufacturing of some goods. Supply-side policies are needed to ensure that these countries gain a comparative advantage in the production of other goods and services so that they are able to export these goods and services to the rest of the world and thereby reduce the current account deficit. These policies are discussed below.

Discuss how investment might reduce a persistent current account deficit

A lack of investment in **human capital**, **physical capital**, and research and development leads to an increase in the **productivity gap**. Firms that produce at relatively high average cost are not able to compete on price internationally, leading to a fall in the demand for exports and an increase in demand for imports. Productivity can be increased by increasing investment in human and physical capital. Government could encourage firms to train workers by giving **subsidies** to firms or by providing it directly, for example, through colleges of further education. The government might encourage advances in technology by providing **grants** to universities and by subsidizing firms to carry out research and development. The government can provide incentives for firms to invest in technologically advanced capital by keeping interest rates low and by giving **tax breaks** on reinvested profit.

Subject vocabulary

contractionary fiscal policy policy involving the reduction of government spending and/or the increase of taxation

contractionary monetary policies policy involving the reduction of the money supply and the increase of interest rates

direct tax a tax that is paid directly by an individual or firm to the government. For example income tax on wages and company profits.

investment the addition to capital stock

rate of inflation the rate at which a weighted average price of a basket of goods and services is rising

rate of economic growth the percentage increase in a country's output in a given period of time

hot money money that flows internationally between financial markets as investors attempt to maximise returns on savings

macroeconomic objectives the main aims of government macroeconomic policy, such as low and stable inflation, low levels of unemployment and sustainable economic growth

supply-side policies government policy designed to affect the level of aggregate supply in an economy by increasing the quantity and/or productivity of the factors of production

structural changes a long-term shift in the fundamental industrial structure of economy (e.g. a change from the primary sector to the secondary sector)

heavy industry industries that use very large and expensive machinery and plant and produce large quantities of output such as car manufacturers and oil and steel producers

service sector the part of the economy that produces intangible goods such as banking, insurance, transport, and hospitality

comparative advantage when a country, firm, or individual is able to produce a particular good or service at a lower opportunity cost than other countries, firms or individuals

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Subject vocabulary

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human capital this relates to the store of knowledge and the set of skills that a worker possesses which can be used in the production process. The higher the value of human capital the more productive the worker is. Human capital can be improved through investment in education and training.

physical capital any manufactured good that is used in the production of other goods and services such as machinery and buildings

productivity gap the difference between the output per worker in one country compared with the output per worker in another country

subsidies payments made by government to firms per unit of output

grants an amount of money given by a government or other organization to an individual, firm, or industry for a particular purpose

tax breaks a reduction in the amount of tax that must be paid by an entrepreneur, firm, or industry in order to encourage economic activity. For example a reduction in the rate of corporate tax in order to increase FDI.

investment the addition to capital stock

technologically advanced capital capital that incorporates new technology and is used in place of existing capital to produce goods and services thereby increasing productivity

price elasticity of demand a measure of how quantity demanded responds to a change in price in percentage terms

Such policies might lead to a fall in average costs, thereby reducing the productivity gap and increasing international competitiveness. As industries in a country become more price competitive, expenditure on exports increases and expenditure on imports falls leading to a fall in the current account deficit. Non-price factors can also affect the demand for exports. Investment in product design and product reliability, for example, will help to increase demand for exports.

The decline of the UK motorbike industry can be used as an example of how lack of **investment** can lead to an increase in the current account deficit. Japanese manufacturers in the 1960s and 1970s invested heavily in **technologically advanced capital** and in the research and development of more reliable and efficient engines. They also invested heavily in design. In the UK investment in the motorbike industry was much less in all these areas. In time the average cost of Japanese bikes was much lower, and the bikes more reliable than bikes made in the UK. Japanese bikes became more competitive and imports into the UK of Japanese bikes increased while exports of British bikes to the rest of the world fell, contributing to the UK's current account deficit.

Explain the Marshall-Lerner condition and the J-curve effect (HL)

Model sentence: It is not the quantity of exports and the quantity of imports traded that determines the current account balance; it is determined by the levels of expenditure on them.

When the exchange rate changes it changes the price of exports and imports leading to a change in quantity demanded for them. Changes to the expenditure on exports and imports are dependent on the value of their **price elasticity of demand** (PED).

What is the effect of an increase in the price of imports on the money flowing out of a country?

An increase in the price of imports leads to a fall in quantity demanded. If demand for imported goods is price inelastic the percentage increase in price will be greater than the percentage fall in quantity demanded. Therefore, when the value of price elasticity of demand for imports is less than 1, the quantity of imported goods falls when price increases but the expenditure on them increases, thereby increasing the flow of money out of the country.

If demand for imported goods is price elastic the percentage increase in price will be less than the percentage fall in quantity demanded. Therefore, when the value of price elasticity of demand for imports is greater than 1, the quantity of imported goods falls when price increases and the expenditure on them also falls, reducing the amount of money flowing out of the country.

Model sentence: If PED for imports is less than 1, expenditure on them rises when the exchange rate depreciates. If PED for imports is greater than 1, expenditure on them falls when the exchange rate depreciates.

What is the effect of a fall in the price of exports on the money flowing out of a country?

A fall in the price of exports leads to an increase in quantity demanded. If demand for exported goods is price inelastic the percentage fall in price will be greater than the percentage increase in quantity demanded. Therefore, when price elasticity of demand for exports is less than 1 the quantity of exported goods increases when price falls but the expenditure on them falls, reducing the flow of money into the country.

If demand for exported goods is price elastic the percentage fall in price will be less than the percentage increase in quantity demanded. Therefore, when price elasticity of demand for exports is greater than 1, the quantity of exported goods increases when price falls and the expenditure on them increases, increasing the flow of money coming into the country.

Model sentence: If PED for exports is less than 1, expenditure on them falls when the exchange rate depreciates. If PED for exports is greater than 1, expenditure on them increases when the exchange rate depreciates.

Explain that the effect on the current account deficit from a change in the exchange rate is dependent on the sum of the values of the PED for imports and exports

It can be seen that the effect on money flows into and out of a country, from trade in imports and exports brought about by a change in the exchange rate, is determined by the value of the PED for imports and exports. Therefore, the effect on the current account deficit from a change in the exchange rate is dependent on the value of the PED for imports and exports.

The Marshall-Lerner condition states that if the sum of the values of the PED for exports and the PED for imports is greater than 1, then a fall in the exchange rate will cause the current account deficit to fall.

Model sentence: If $PED X + PED M > 1$ a fall in the exchange rate reduces the current account deficit.

If the sum of the values of the PED for exports and the PED for imports is less than 1, then a fall in the exchange rate will cause the current account deficit to increase.

Model sentence: If $PED X + PED M < 1$ a fall in the exchange rate increases the current account deficit. If $PED X + PED M < 1$ an increase in the exchange rate reduces the current account deficit.

Model sentence: If a government tries to reduce the current account deficit by reducing the value of the currency the policy will only be successful if $PED X + PED M > 1$. When $PED X + PED M < 1$ reducing the value of the currency will increase the current account deficit.

What is the J-curve effect?

The Marshall-Lerner condition states that if $PED X + PED M > 1$ a fall in the **exchange rate** reduces the current account deficit. But in the short term a depreciation of the exchange rate might not reduce the current account deficit because in the short term the value of PED for exports and the value of PED for imports are likely to be **price inelastic**.

When the price of imports increases due to a fall in the exchange rate the quantity of imports demanded will only fall by a relatively small amount. For example, firms importing **raw materials** cannot immediately find new suppliers after an increase in price. Firms might also be tied into contracts with suppliers for a given period of time and, therefore, cannot change suppliers immediately after an increase in price. Therefore, importers have to continue to buy the goods. The value of PED for imports immediately after an increase in the price of imports is very inelastic.

The same is true for exports. The price of exports falls after a fall in the exchange rate but firms in other countries are also tied into contracts and find it difficult to immediately find suppliers of cheaper **substitute goods**. Therefore, the value of PED for exports is inelastic in the short term.

When $PED X + PED M < 1$, as is the case in the short term, the deficit increases after a fall in the exchange rate. This is shown in Figure 77.2 by the line falling over time.

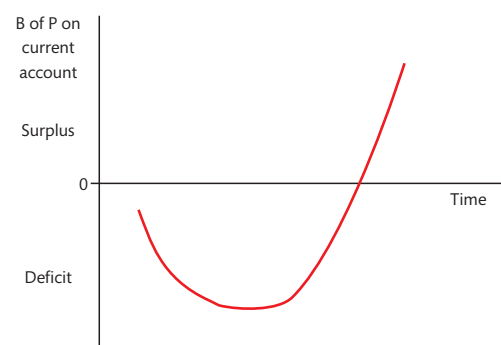


Figure 77.2

change suppliers, therefore the quantity of imports demanded falls further. In the long-term, the value of PED for imports becomes more elastic and the expenditure on them falls, leading to a fall in the flow of money out of the country. The value of PED for exports also becomes more elastic and expenditure on exports increases, leading to an increase in the flow of money into the country. When $PED X + PED M > 1$, the current account deficit falls. This is shown by the line rising over time.

Model sentence: In the short run after a fall in the exchange rate $PED X + PED M < 1$ therefore the current account deficit increases. In the long term $PED X + PED M > 1$ therefore the current account deficit falls.

The deficit increases but in time will begin to fall leading to a J-shaped line shown in Figure 77.2. That is why it is called the 'J-curve effect' of a fall in the exchange rate.

Test your understanding of this unit by answering the following questions

- What is a current account deficit?
- Explain the relationship between the exchange rate and the current account deficit.
- Explain government policies designed to reduce the current account deficit.
- Explain why in the short term a fall in the exchange rate may worsen a current account deficit.

Subject vocabulary

exchange rate the price of a country's currency in terms of another currency

price inelastic the percentage change in quantity demanded/supplied < the percentage change in price

raw materials the basic material from which a good is made

substitute good a good that can be used in place of another good